UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,156	04/17/2006	**Kazunori Ozawa**	19734	2171

23389 7590 10/28/2008

SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

EXAMINER	
CHAU, PETER P	

ART UNIT	PAPER NUMBER
4144	

MAIL DATE	DELIVERY MODE
10/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,156	OZAWA, KAZUNORI	
	Examiner	Art Unit	
	PETER CHAU	4144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,21-26 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,21-26 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/17/2006, 8/15/2006, 3/5/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-10, 21-26 and 30** have been examined and are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. **Claims 4, 5, 8, 9, 10, 24, 26 and 30** are objected to because of the following informalities: The applicant recites a transmission line in a wireless environment. In wireless environments, there is no transmission line, but a transmission medium or the like. The examiner will interpret this as transmission medium. Appropriate correction is required.

4. **Claim 26** is objected to because of the following informalities: the dependent claim's preamble has been written such as to question whether or not it is a dependent claim. The applicant should reword the dependent claim's preamble so that it is clear that claim 26 is dependent on claim 25. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 4, 8, 9 and 24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The term "predetermined status" in claim 4, 8, 9 and 24 is a relative term which renders the claim indefinite. The term “predetermined status " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The control signal has been rendered indefinite by the use of the term.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-24 are rejected under 35 U.S.C. 101 because they recite a program causing a computer to perform functions and is not tangibly embodied stored on a computer readable medium.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1, 3, 6, 21, 23, 25 and 26** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,586,088 Mitsuru Kondo (hereinafter "Kondo").

As per claim 1 and 21, Kondo teaches a transmission device and program comprising (figure 1, discloses a transceiver containing an encoder and a decoder and a control unit. Note that the control unit must have a program/software in order to perform operations)**:**

an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal, to a transmission line (figure 1, discloses a transceiver containing a encoder and a decoder; column 2 line 55 to column 3 line 5, discloses an encoder encoding a signal and then outputting the encoded signal to a receiving end)**;**

and a control unit for controlling said encoder unit to change a compression rate thereof and output the stream, when a control signal is received from said transmission line (column 2 line 55 to column 3 line 5, discloses in response to the system (receiving side) informing the transmitting transceiver, the encoder either stops encoding or insert fill bits, thereby increasing the transmission rate (compression rate); figure 1, discloses a system control unit performing control on the encoder. Note that the system control unit shown in figure 1 must be the one controlling the encoder for inserting fill bits or stop encoding).

As per claim 3 and 23, Kondo teaches a reception device comprising (figure 1, discloses a transceiver containing an encoder and a decoder and a control unit. Note that the control unit must have a program/software in order to perform operations)**:**

a decoder unit for decoding a stream received from a transmission line (column 2 line 55 to column 3 line 5, discloses a decoder at a receiving transceiver)**;**

a buffer unit for storing a medium signal decoded and produced by said decoder unit (column 2 line 55 to column 3 line 5, discloses the decoder decodes data and then stores it in a buffer memory)**;**

and a control unit for monitoring a storage amount of said buffer unit, said control unit outputting a control signal to said transmission line if the storage amount exceeds or falls below a predetermined threshold (column 2 line 55 to column 3 line 5, discloses when the buffer memory is about to overflow, the system (receiving side) informs the transmitting transceiver of that storage condition. Kondo also cites there are threshold values for the buffer memory and when the threshold values are meet, the system (receiving side) informs the transmitting transceiver's encoder to either stops encoding or insert fill bits, thereby increasing the transmission rate. Note that the system would need a control unit to monitor the storage amount in the buffer in order to inform the transmitting transceiver of the storage condition).

As per claim 6, Kondo teaches a transmission/reception device comprising (figure 1, discloses a transceiver containing an encoder and a decoder):

a decoder unit for decoding a stream received from a transmission line (column 2 line 55 to column 3 line 5, discloses a decoder at a receiving transceiver);

a buffer unit for storing a medium signal, decoded and produced by said decoder unit (column 2 line 55 to column 3 line 5, discloses the decoder decodes data and then stores it in a buffer memory);

a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to said transmission line, if the storage amount exceeds or falls below a predetermined threshold (column 2 line 55 to column 3 line 5, discloses when the buffer memory is about to overflow, the system (receiving side) informs the transmitting transceiver of that storage condition. Kondo also cites there are threshold values for the buffer memory and when the threshold values are meet, the system (receiving side) informs the transmitting transceiver's encoder to either stops encoding or insert fill bits, thereby increasing the transmission rate. Note that the system (receiving side) would need a control unit to monitor the storage amount in the buffer in order to inform the transmitting transceiver of the storage condition);

an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal, to said transmission line (figure 1, discloses a transceiver containing a encoder and a decoder; column 2 line 55 to column 3 line 5, discloses an encoder encoding a signal and then outputting the encoded signal to a receiving end);

and a second control unit for controlling said encoder unit to change a compression rate thereof and output the stream, when the control signal is received from said transmission line (column 2 line 55 to column 3 line 5, discloses in response to the system (receiving side) informing the transmitting transceiver, the encoder either stops encoding or insert fill bits, thereby increasing the transmission rate (compression rate); figure 1, discloses a system control unit performing control on the encoder. Note that the system control unit shown in figure 1 must be the one controlling the encoder for inserting fill bits or stop encoding).

As per claim 25, Kondo teaches a transmission device that receives information data, including audios and/or images, as an input, performs encoding processing of the input data, creates distribution data and distributes the distribution data via a wired and/or wireless transmission line, said transmission device comprising (figure 1, discloses a transceiver comprising a reader, an encoder to encode data from the reader, a buffer memory that stores the encoded data, a system control unit for controlling the operations of the transmitter and a modulator that modulates the encoded that and outputs it to a transmission line; column 1 lines 25-27, discloses a reader such as a scanner)**:**

means for controlling an output in such a way that, when a predetermined control signal is received from said transmission line, a compression rate of the encoding processing is changed or the distribution data is output at a time interval different from a time interval at which the input data has been encoded by

the encoding processing (column 2 line 55 to column 3 line 5, discloses in response to the system (receiving side) informing the transmitting transceiver, the encoder either stops encoding or insert fill bits, thereby increasing the transmission rate (compression rate); figure 1, discloses a system control unit performing control on the encoder. Note that the system control unit shown in figure 1 must be the one controlling the encoder for inserting fill bits or stop encoding).

As per claim 26, Kondo teaches a reception device comprising means for receiving and decoding the distribution data distributed from the transmission device according to claim 25 to said transmission line (figure 1, discloses a transceiver comprising a decoder that receives data from the transmission side of the transceiver),

said reception device further comprising means for monitoring a status of a storage amount of a storage device in which the received data is stored or a status of reception from said transmission line and, based on the monitor result, transmitting the control signal to said transmission device via said transmission line (column 2 line 55 to column 3 line 5, discloses when the buffer memory (storage device) is about to overflow, the system (receiving side) informs the transmitting transceiver of that storage condition. Kondo also cites there are threshold values for the buffer memory and when the threshold values are meet, the system (receiving side) informs the transmitting transceiver's encoder to either stops encoding or insert fill bits, thereby increasing the transmission rate. Note that the system (receiving side) would

need a control unit to monitor the storage amount in the buffer in order to inform the transmitting transceiver of the storage condition).

11. **Claims 2 and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,330,278 Masters et al. (hereinafter "Masters").

As per claim 2 and 22, Masters teaches a transmission device comprising (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section. Note that the processor must have a program/software in order to perform operations)**:**

an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; figure 3, discloses the transmitting section that has an encoder that receives data)**;**

and an output control unit for receiving the stream output from said encoder unit, said output control unit performing control, when a control signal is received from a transmission line, to output the stream to the transmission line at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit (figure 2, discloses a transceivers that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; column 4 lines 14-29, discloses that the pair of transceivers in figure 2 are in communications with each other and that in this way a feedback loop is formed

between the two processors of the pair of transceivers; figure 3, discloses the transmitting section that has an encoder that receives data, a modulator (control unit) that receives the encoded data and a processor receiving a feedback signal (control signal). Note that the modulator must output the encoded data at a time interval different from the time interval of encoding because since the modulating unit and encoder are not in one unit, there is a delay between transferring from the encoder to the modulator, hence a different time from when encoding occurs and when the transmission occurs).

12. **Claims 4-5** are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1182875 Horiuchi et al. (hereinafter "Horiuchi") (IDS filled on 4/17/2006).

As per claim 4, Horiuchi teaches a reception device comprising (column 11 lines 52-54, disclose a terminal (device) that receives a stream of data; figure 3, discloses the terminal having a CPU controlling the operations of the terminal. Note that the CPU must have a program/software in order to perform operations)**:**

a decoder unit for decoding a stream received from a transmission line (column 11 lines 52-54, discloses a terminal (device) that receives and decodes the stream)**;**

a monitor unit for monitoring a reception status of said transmission line (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status). Note that the terminal must have a monitoring unit in order to detect a change in field intensity)**;**

and a control unit for outputting a control signal to said transmission line based on a notification from said monitor unit, if the reception status becomes a predetermined status (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status) and when the field intensity changes, the terminal outputs a S_target parameter (control signal) to the server and then the server respond to the signal by controlling the transmission speed. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

As per claim 5, Horiuchi teaches the reception device according to claim 4, wherein, when a wireless status of said transmission line indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the status to said control unit (figure 7A, shows a terminal, 102, moving from one wireless area to another wireless area; column 20 lines 11-24, discloses the terminal moving in a line indicated in figure 7A and detects the change in field intensity moving from one wireless area to another and the terminal then outputs a new S_target parameter (control signal) to the server based on the changed field intensity. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,330,278 Masters et al. (hereinafter "Masters") and in further view of Patent 4,586,088 Mitsuru Kondo (hereinafter "Kondo")

As per claim 7, while Masters teaches a transmission/reception device comprising (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver)**:**

a decoder unit for decoding a stream received from a transmission line (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; figure 4, discloses the receiving section having an decoder that receives data from a transmission)**;**

an encoder unit for outputting a stream obtained by receiving and encoding a medium signal (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; figure 3, discloses the transmitting section that has an encoder that receives data)**;**

and a second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission line at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, when the control signal is received from said transmission line (figure 2, discloses a transceivers that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; column 4 lines 14-29, discloses that the pair of transceivers in figure 2 are in communications with each other and that in this way a feedback loop is formed between the two processors of the pair of transceivers; figure 3, discloses the transmitting section that has an encoder that receives data, a modulator (control unit) that receives the encoded data and a processor receiving a feedback signal (control signal). Note that the modulator must output the encoded data at a time interval different from the time interval of encoding because since the modulating unit and encoder are not in one unit, there is a delay between transferring from the encoder to the modulator, hence a different time from when encoding occurs and when the transmission occurs)**, Masters does not, but Kondo teaches a buffer unit for storing a medium signal decoded and produced by said decoder unit** (column 2 line 55 to column 3 line 5,

discloses a decoder at a receiving transceiver, the decoder decodes data and then stores it in a buffer memory);

a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to said transmission line, if the storage amount exceeds or falls below a predetermined threshold (column 2 line 55 to column 3 line 5, discloses when the buffer memory is about to overflow, the system (receiving side) informs the transmitting transceiver of that storage condition; Kondo also cites there are threshold values for the buffer memory and when the threshold values are meet, the system (receiving side) informs the transmitting transceiver's encoder to either stops encoding or insert fill bits, thereby increasing the transmission rate).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a buffer unit for storing a medium signal decoded and produced by said decoder unit and a first control unit for monitoring a storage amount of said buffer unit, said first control unit outputting a control signal to said transmission line, if the storage amount exceeds or falls below a predetermined threshold to the transmission/reception device of Masters to shorten transmission time even though their buffer memory sizes, encoding rates and decoding rates may be different (Kondo, column 3 lines 27-31).

16. **Claims 8 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent 4,586,088 Mitsuru Kondo (hereinafter "Kondo") and in further view of EP 1182875 Horiuchi et al. (hereinafter "Horiuchi") (IDS filled on 4/17/2006).

As per claim 8, while Kondo teaches a transmission/reception device comprising (figure 1, discloses a transceiver containing an encoder and a decoder)**:**

a decoder unit for decoding a stream received from a transmission line (figure 1, discloses a transceiver containing a encoder and a decoder and that the decoder receives encoded data from the transmission line)**;**

an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal, to said transmission line (figure 1, discloses a transceiver containing a encoder and a decoder; column 2 line 55 to column 3 line 5, discloses an encoder encoding a signal and then outputting the encoded signal to a receiving end)**;**

and a second control unit for controlling said encoder unit to change a compression rate thereof and output the stream when the control signal is received from said transmission line (column 2 line 55 to column 3 line 5, discloses in response to the system (receiving side) informing the transmitting transceiver, the encoder either stops encoding or insert fill bits, thereby increasing the transmission rate (compression rate); figure 1, discloses a system control unit performing control on the encoder. Note that the system control unit shown in figure 1 must be the one controlling the encoder for inserting fill bits or stop encoding)**, Kondo does not, but Horiuchi does teaches a monitor unit for monitoring a reception status of said**

transmission line (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status). Note that the terminal must have a monitoring unit in order to detect a change in field intensity)**;**

a first control unit for outputting a control signal to said transmission line based on a notification from said monitor unit if the reception status becomes a predetermined status (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status) and when the field intensity changes, the terminal outputs a S_target parameter (control signal) to the server and then the server respond to the signal by controlling the transmission speed. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a monitor unit for monitoring a reception status of said transmission line and a first control unit for outputting a control signal to said transmission line based on a notification from said monitor unit if the reception status becomes a predetermined status to the transmission/reception device of Kondo to prevent streaming playback from being disturbed if the transmission capacity of the network fluctuates (Horiuchi, column 4 lines 31-36).

As per claim 10, the combination of Kondo and Horiuchi teaches the transmission/reception device according to claim 8, wherein, when a wireless

status of said transmission line indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the status to said first control unit (Horiuchi, figure 7A, shows a terminal, 102, moving from one wireless area to another wireless area; column 20 lines 11-24, discloses the terminal moving in a line indicated in figure 7A and detects the change in field intensity moving from one wireless area to another and the terminal then outputs a new S_target parameter (control signal) to the server based on the changed field intensity. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kondo's invention with Horiuchi's wireless handover monitoring unit because it prevents streaming playback from being disturbed if the transmission capacity of the network fluctuates (Horiuchi, column 4 lines 31-36).

17. **Claims 9 and 30** rejected under 35 U.S.C. 103(a) as being unpatentable over Masters in further view EP 1182875 Horiuchi et al. (hereinafter "Horiuchi") (IDS filled on 4/17/2006).

As per claim 9, while Masters teaches a transmission/reception device comprising (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver)**:**

a decoder unit for decoding a stream received from a transmission line (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter

section that constantly send information to the other transceiver; figure 4, discloses the receiving section having an decoder that receives data from a transmission);

an encoder unit for outputting a stream, obtained by receiving and encoding a medium signal (figure 2, discloses a transceiver that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; figure 3, discloses the transmitting section that has an encoder that receives data);

and a second control unit for receiving the stream output from said encoder unit, said second control unit performing control to output the stream to said transmission line at a time interval different from a time interval at which the medium signal has been encoded by said encoder unit, when the control signal is received from said transmission line (figure 2, discloses a transceivers that contains a processor, a receiver and a transmitter section that constantly send information to the other transceiver; column 4 lines 14-29, discloses that the pair of transceivers in figure 2 are in communications with each other and that in this way a feedback loop is formed between the two processors of the pair of transceivers; figure 3, discloses the transmitting section that has an encoder that receives data, a modulator (control unit) that receives the encoded data and a processor receiving a feedback signal (control signal). Note that the modulator must output the encoded data at a time interval different from the time interval of encoding because since the modulating unit and encoder are not in one unit, there is a delay between transferring from the encoder to the modulator, hence a different time from when encoding occurs and when the transmission occurs),

Masters does not, but Horiuchi teaches a monitor unit for monitoring a reception status of said transmission line (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status). Note that the terminal must have a monitoring unit in order to detect a change in field intensity);

a first control unit for outputting a control signal to said transmission line based on a notification from said monitor unit if the reception status becomes a predetermined status (column 18 line 40 to column 20 line 24, discloses a terminal having the ability to detect field intensity (reception status) and when the field intensity changes, the terminal outputs a S_target parameter (control signal) to the server and then the server respond to the signal by controlling the transmission speed. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a monitor unit for monitoring a reception status of said transmission line and a first control unit for outputting a control signal to said transmission line based on a notification from said monitor unit if the reception status becomes a predetermined status to the transmission/reception device of Masters to prevent streaming playback from being disturbed if the transmission capacity of the network fluctuates (Horiuchi, column 4 lines 31-36).

As per claim 30, the combination of Masters and Horiuchi teaches the transmission/reception device according to claim 9, wherein, when a wireless status of said transmission line indicates a handover from a current wireless area to an adjacent area, said monitor unit notifies the status to said first control unit (Horiuchi, figure 7A, shows a terminal, 102, moving from one wireless area to another wireless area; column 20 lines 11-24, discloses the terminal moving in a line indicated in figure 7A and detects the change in field intensity moving from one wireless area to another and the terminal then outputs a new S_target parameter (control signal) to the server based on the changed field intensity. Note that the terminal must have a monitoring unit in order to detect a change in field intensity and a control unit to output a control signal to the server in response to the monitoring unit).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Masters invention with Horiuchi's wireless handover monitoring unit because it prevents streaming playback from being disturbed if the transmission capacity of the network fluctuates (Horiuchi, column 4 lines 31-36).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,501,017 Higgins et al. discloses a transceiver comprising a multiple function switch decoder and having an encoder and a transmitter.

U.S. Patent 5,796,957 Yamamoto et al. discloses a transceiver that transmits moving image data from terminal to another terminal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER CHAU whose telephone number is (571)270-7152. The examiner can normally be reached on Monday-Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 571-242-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. C./
Examiner, Art Unit 4144

/Taghi T. Arani/

Supervisory Patent Examiner, Art Unit 4144